

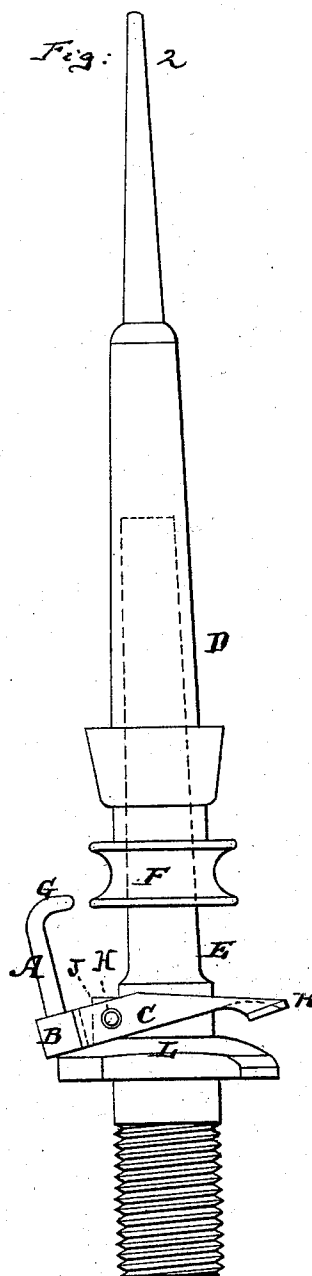
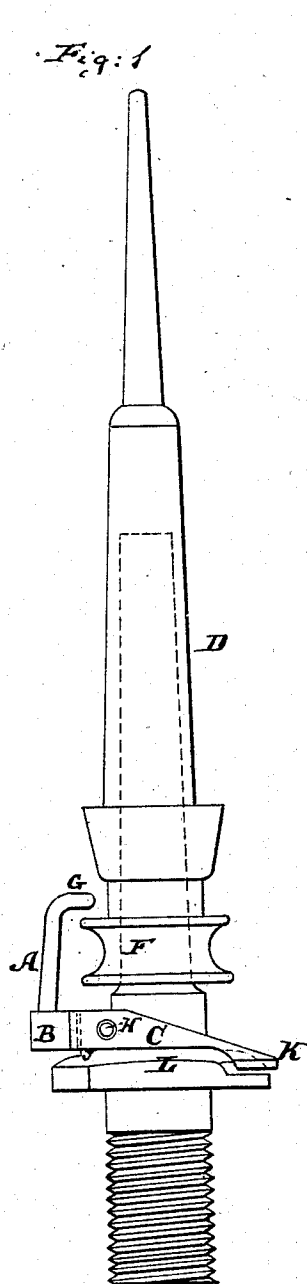
(No Model.)

2 Sheets—Sheet 1.

S. TWEEDALE.
MACHINE FOR SPINNING FIBERS.

No. 283,045.

Patented Aug. 14, 1883.



Witnesses:
John C. Tunbridge
John M. Spear

Inventor:
Samuel Tweedale
by his attorneys
Briese & Steele

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3

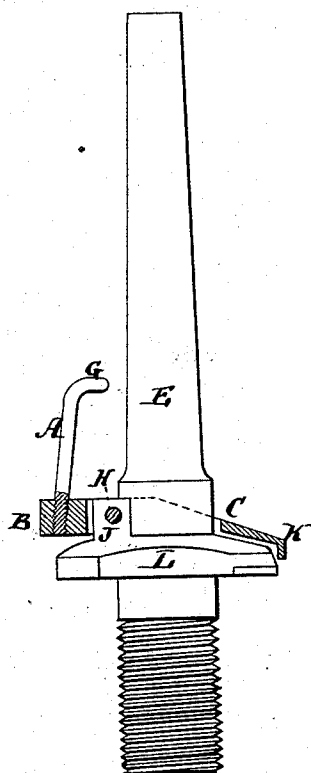


Fig. 4

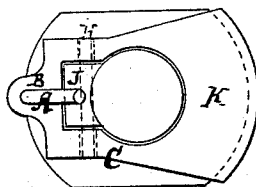


Fig. 5

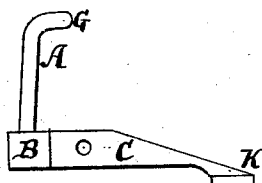
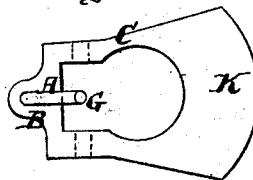


Fig. 6



Witnesses

John C. Tunbridge.
John W. Spear

Inventor

Samuel Tweedale
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Briesen & Steele

UNITED STATES PATENT OFFICE.

SAMUEL TWEEDALE, OF ACCRINGTON, COUNTY OF LANCASTER, ENGLAND.

MACHINE FOR SPINNING FIBERS.

SPECIFICATION forming part of Letters Patent No. 283,045, dated August 14, 1883.

Application filed February 28, 1883. (No model.) Patented in England June 14, 1882, No. 2,799.

To all whom it may concern:

Be it known that I, SAMUEL TWEEDALE, a subject of Her Britannic Majesty Queen Victoria, residing at Accrington, in the county of Lancaster, England, have invented new and useful Improvements in Machinery for Spinning Fibers, (for which I have obtained a patent in Great Britain, No. 2,799, bearing date June 14, 1882, for fourteen years,) of which the following is a specification.

My invention relates to improvements in machinery employed for spinning, in which cranked wires are used for the purpose of preventing the spindle being lifted during the act of "doffing" or removal of the bobbins or spools; and the object of my improvements is to provide a holding device for the wire, whereby the wire may be readily moved from or into the holding position. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of a spindle having my improved apparatus applied thereto. Fig. 2 is a like elevation, showing the improved carrier tilted for the removal or for replacing the spindle in and upon its tube. Fig. 3 is an elevation of tube and my improved carrier, shown in section. Fig. 4 is a plan of Fig. 3. Figs. 5 and 6 are an elevation and a plan of the carrier detached, or shown apart from the spindle or tube.

The lower end of the cranked holding-wire A is screwed into the projecting part B of the counterbalanced carrier C, and when the spindle D is being placed in position on and in its tube E the under side of the whirl F bears or acts upon the cranked end G of the wire A, forcing back the wire A and tilting the carrier C on its fulcrum-pin H (the latter being passed through the sides of the carrier C and through the lug J of the tube E) clear of the whirl F. When the latter is down or passed to the position shown at Fig. 1, the heavy end K of the carrier C returns the carrier C on its pin H and the wire A to the holding position shown at Fig. 1. It will thus be seen that, if the spindle D is placed on its tube E and allowed to fall, its whirl F strikes and, self-acting, tilts back the wire A and carrier C, and the

latter, being, as described, counterbalanced by part K, will return bent end of the wire A over the whirl F. Thus the action is automatic. The spindle D cannot be raised or lifted when doffing or removing the bobbins or spools, because if the whirl F be lifted against the cranked end G of the wire A the action, being on the pin H, causes the part K of the carrier C to bear on or against the flange L of the tube E; but when it is necessary to remove the spindle, for lubrication or other purposes, the end K of the carrier C is by the thumb or finger raised. The carrier then tilts, assuming the position shown at Fig. 2, and the spindle is free for removal.

It will be understood that the drawings illustrate a spindle, carrier, and holding-wire complete, each and every spindle having its own carrier and holding-wire, so that any one spindle may be stopped, released, and removed without interference with the remaining or adjoining spindles.

I am aware that prior to my invention the wires A had been used by screwing the same into a stationary block or part of the flange of the spindle's tube, and such wire would, for purpose of releasing or holding the spindle, be turned a part of a revolution, so as to remove from over or bring over the whirl the cranked part of such wire. In other constructions such wires or equivalents had been mounted upon a sliding bar or affixed to a shaft or rod, to which a partial rotation was given for putting the said wires in and out of position.

I lay no claim to the wire, nor to the devices just referred to.

What I do claim is—

The combination of the hinged carrier C, having weighted end K at one side and wire A at the other end, with the whirl F, spindle D, and tube E, having flange L, all arranged so that said carrier C is held on the tube E, between the whirl F and the flange L, substantially as herein shown and described.

SAMUEL TWEEDALE.

Witnesses:

EDWARD WILLIAM HORNE,
JOSEPH GRIMSHAW.